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A Monthly Report from The Conference Board

INTERNATIONAL ECONOMIC SCOREBOARD

The Conference Board

APRIL, 1987

SUMMARY

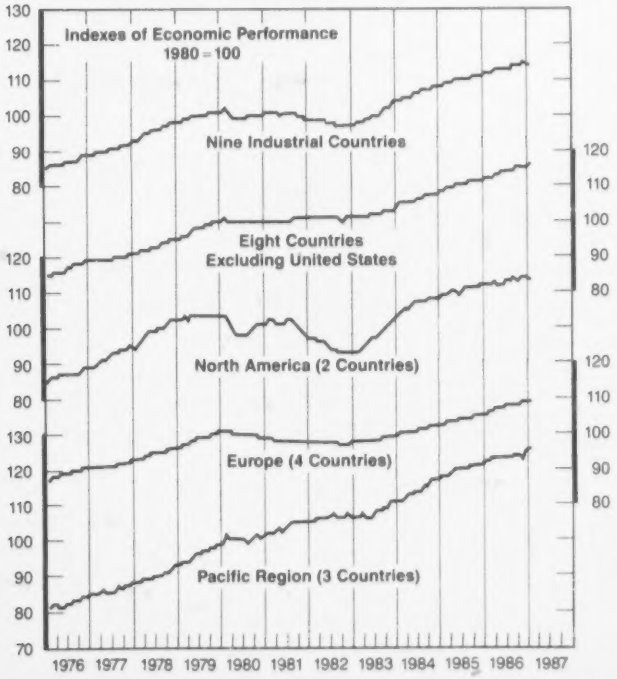
Although economic expansion continues at a respectable but uninspiring pace in the industrial world, for most countries the leading indexes are pointing to a strengthening in the months ahead. In Europe the signals given by these forward-looking indicators are humdrum, especially in West Germany. In North America the prospective improvement is noticeable but modest. In the Pacific Region, however, the leading indexes look positively explosive. As always, the key country in that part of the world is Japan, where the growth rate of the leaders surged to 18 percent in January. Taiwan's leading index is close behind with a 15 percent growth rate, and Australia's is a perky 9 percent.

Note: Effective with this issue, the ten-year growth trends are calculated from data for 1976-86 (previously 1969-79).

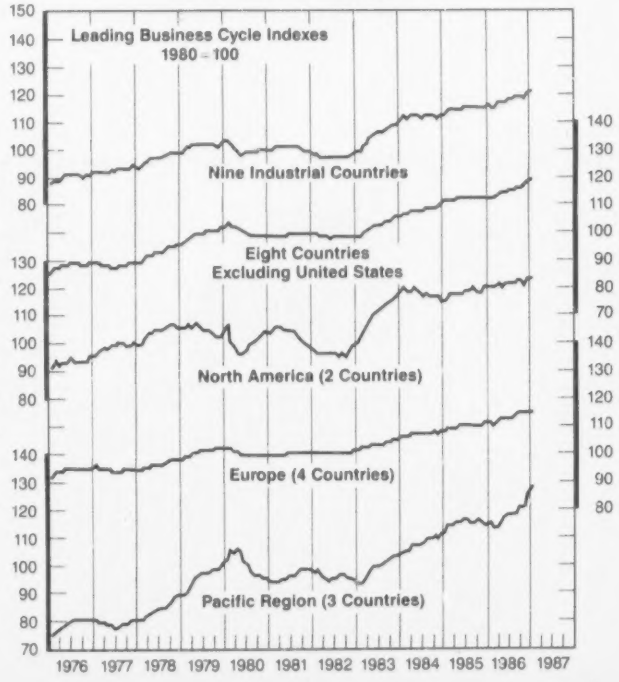
	Ten-year Growth Rate	*Indexes of Economic Performance Growth Rates**			*Leading Business Cycle Indexes Growth Rates**				
	1976-86	*6 mos. ago*	*3 mos. ago*	*Latest month*	*6 mos. ago*	*3 mos. ago*	*Latest month*	*Current Reading on the Cycle*	*Latest Month Covered*
	annual rates, percent								
9 countries	3	3	3	2	3	4	6	Expansion continuing	Jan.
8 countries ex. U.S.	3	3	3	3	3	5	8	Expansion continuing	Jan.
North America (2)	3	2	2	1	3	2	4	Expansion continuing	Jan.
Europe (4)	2	4	3	3	3	4	3	Expansion continuing	Jan.
Pacific Region (3)	4	2	3	4	5	8	17	Expansion continuing, leaders strong	Jan.
United States	3	2	2	1	3	0	7	Expansion continuing	Feb.
Canada	3	2	2	2	2	2	3	Expansion continuing	Jan.
West Germany	2	6	4	2	1	2	0	Expansion continuing, leaders weak	Jan.
France	2	4	4	3	5	5	5	Expansion continuing	Jan./Feb.
United Kingdom	2	3	4	5	1	1	3	Expansion continuing	Feb./Jan.
Italy	2	2	2	2	5	6	3	Expansion continuing	Oct./Jan.
Japan	4	2	3	4	5	6	18	Expansion continuing, leaders strong	Jan.
Australia	3	2	3	4	0	6	9	Expansion continuing, leaders strong	Jan.
Taiwan, R.O.C.	8	12	13	19	13	14	15	Expansion continuing, leaders strong	Feb.

* Ratio of current month's index to average index over the preceding 12 months, expressed as a compound annual rate.

Where We Are


Indexes of Economic Performance
1980 = 100
Nine Industrial Countries
Eight Countries
Excluding United States
North America (2 Countries)
Europe (4 Countries)
Pacific Region (3 Countries)
1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987

Where We're Headed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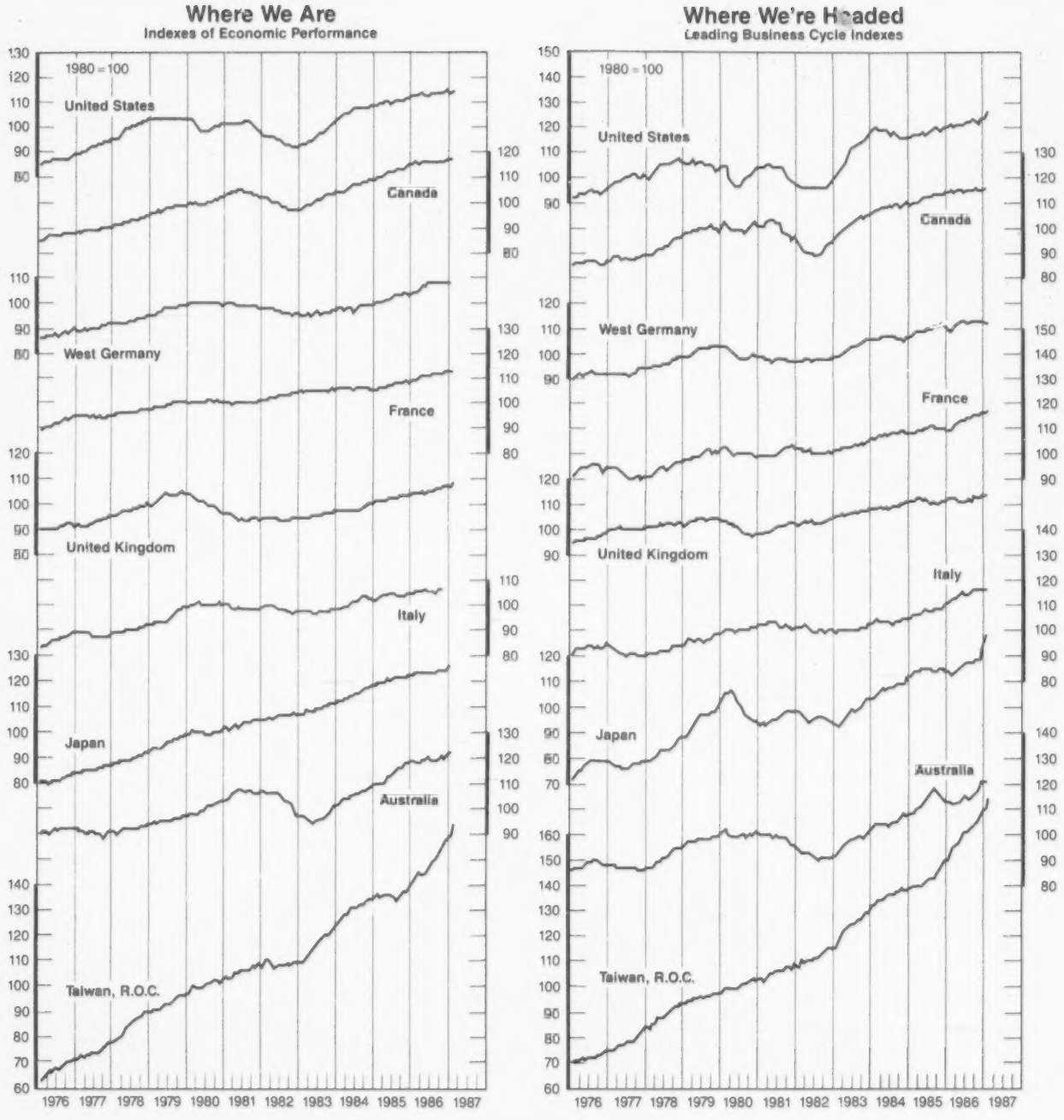
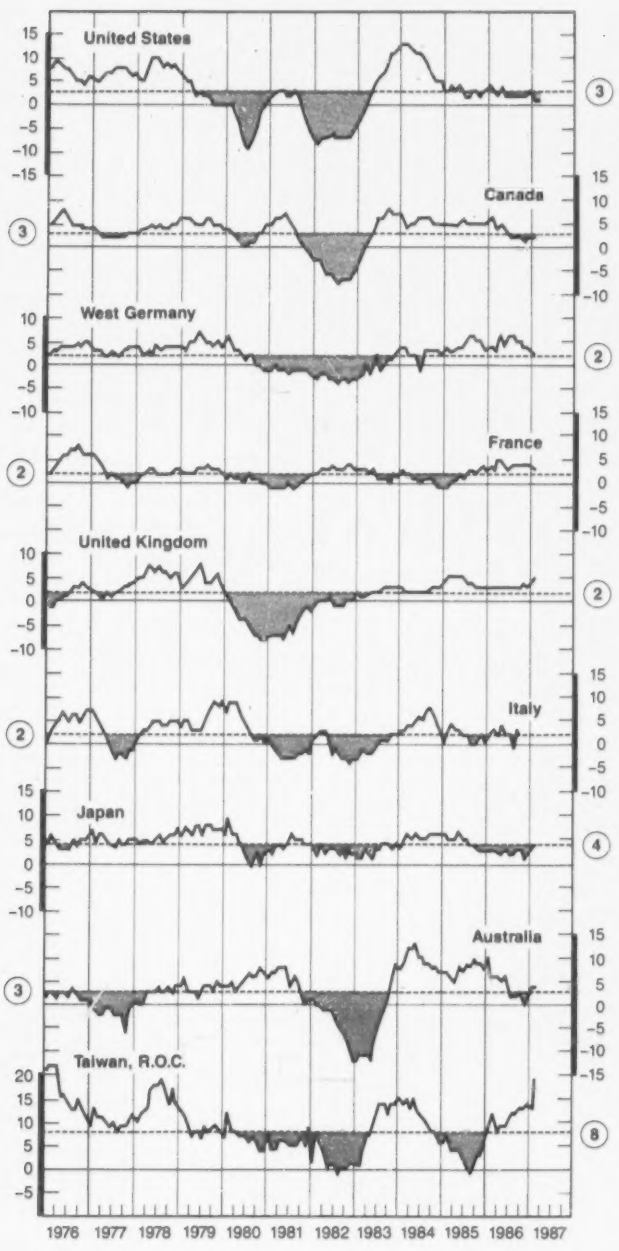


Source: Compiled for The Conference Board by the Center for International Business Cycle Research, Columbia Business School.

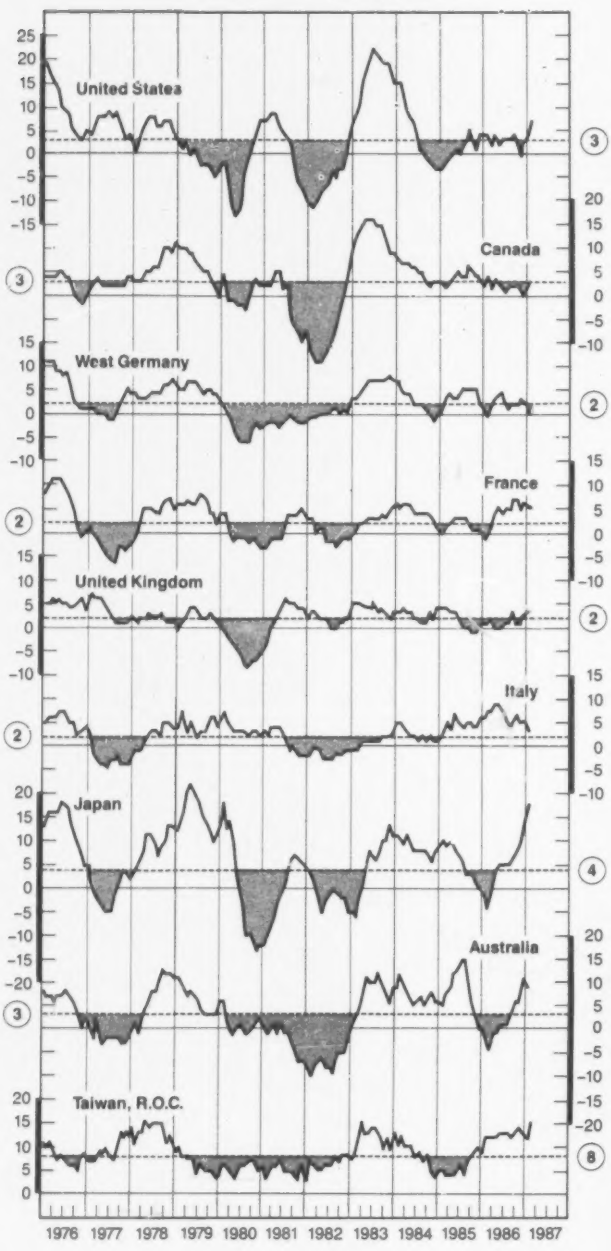
Where We Are

Growth Rates, %, Performance Indexes



Where We're Headed

Growth Rates, %, Leading Indexes



Note: Horizontal dashed lines are average growth rates for 1976-1986 in the index and in Real GNP.

Source: Compiled for The Conference Board by the Center for International Business Cycle Research, Columbia Business School.

OUTPUT AND INFLATION FORECASTS: HOW ACCURATE?

A couple of years ago, writing in *The AEI Economist,* Herbert Stein complained about the bum rap economic forecasters were getting from noneconomists. He argued, "I never see any factual information on the record of economic forecasting. It is as if a sports reporter were to appraise Ted Williams as a batter without giving his batting average but giving only an anecdote about the day he struck out three times." Among economists, of course, there has been considerable study of the forecasting record. In the U.S. the pioneering work of Victor Zarnowitz and Stephen McNees quickly comes to mind. In other countries, studies of the accuracy of forecasts are in their infancy.

Zarnowitz's most significant conclusions, drawn from the U.S. record, is that it is difficult for most individuals to predict consistently better than the consensus of a group of professional forecasters. In other words, there is a high probability that the consensus will have a smaller error over time than will the individual forecaster.

In this issue of the *Scoreboard* we examine a record of the consensus forecasts of changes in the real gross national product (GNP) and the consumer price index (CPI) for four major countries since 1982. In addition, we present the forecasts of real output and price changes for 1987 and 1988.

We obtained this record from *Blue Chip Economic Worldscan* (Capitol Publications, Arlington, Va.), which every month presents projections of year-to-year percentage changes in the GNP and the CPI for ten major countries. More than forty prominent forecasters from many countries regularly participate in this survey, which began in 1982.

The consensus forecasts of changes in output and prices that were made in October preceding the forecast year for the United States, the United Kingdom, West Germany, and Japan showed average errors (for all four countries combined) of 0.7 percentage points for output and 1.5 points for prices (see table). Whether this is a good, bad, or in-

AVERAGE ERRORS, WORLDSCAN CONSENSUS FORECASTS, 1983-1986

Real Gross National Product (year-to-year % change)

Month of Forecast	*Forecast Interval, Months*[a]	*United States*	*United Kingdom*	*West Germany*	*Japan*	*Average, 4 Countries*
		percentage points				
Preceding Year						
January	23	1.0	1.0	0.7	1.2	1.0
April	20	0.8	0.8	0.8	1.2	0.9
July	17	0.8	0.8	0.6	1.0	0.8
October	14	0.8	0.9	0.3	0.9	0.7
Forecast Year						
January	11	0.9	0.9	0.2	0.7	0.7
April	8	0.8	0.8	0.4	0.6	0.7
July	5	0.3	0.7	0.2	0.4	0.4
October	2	0.3	0.5	0.2	0.2	0.3
Consumer Price Index (year-to-year % change)						
Preceding Year						
January	23	2.7	2.5	1.6	2.0	2.2
April	20	1.8	2.3	1.5	1.7	1.8
July	17	1.5	1.9	1.4	1.5	1.6
October	14	2.0	1.7	1.2	1.2	1.5
Forecast Year						
January	11	1.4	1.3	1.0	1.0	1.2
April	8	0.7	1.1	0.6	0.5	0.7
July	5	0.4	0.5	0.4	0.3	0.4
October	2	0.1	0.3	0.2	0.2	0.2

[a] From date of forecast (col. 1) to end of forecast year.

Note: Average errors are calculated without regard to sign.

LATEST WORLDSCAN CONSENSUS FORECASTS FOR 1987, 1988

Real Gross National Product (year-to-year % change)

Month of Forecast	Forecast Span	Forecast Interval, months	United States	United Kingdom	West Germany	Japan
Actual[a]	1985-86	. . .	2.5	2.5	3.0	2.5
March 1987	1986-87	8	2.5	2.8	2.2	2.5
March 1987	1987-88	20	2.9	2.4	2.5	2.9

Consumer Price Index (year-to-year % change)

Actual[a]	1985-86	. . .	1.9	3.4	0.2	0.6
March 1987	1986-87	8	3.5	4.4	0.6	0.4
March 1987	1987-88	20	4.4	5.0	1.7	1.6

[a] For the 1985-1986 span, the figures are the actual year-to-year percent changes.

different record depends on your standards. One simple and widely used standard is the so-called "naive forecast," which calls for "no change in the rate of change." The "naive forecast," in other words, assumes that during the year ahead the percentage change in the GNP or the CPI will be same as the current year's change. Use of this forecasting method produces an average error in the year-to-year changes in output and prices for the four countries of 1.4 and 1.5 percentage points, respectively. The Wordscanners obviously have little difficulty beating this simple benchmark in their output predictions. On inflation, however, they scored no better than a tie.

Those who employed the "same change" rule, however, would not know precisely what the current year's rate of change was until after the end of the year. Therefore, it may be more appropriate to compare the benchmark predictions with the Worldscanner's forecast's in January of the forecast year (rather than the previous October). In this case, the consensus forecasts of output and price changes had average errors of 0.7 and 1.2 percentage points respectively, compared with the 1.4 and 1.5 point errors based on the "same change" rule. That is, across this slightly shorter time span the consensus did better than the naive forecast on prices as well as output.

As would be expected, forecast accuracy usually improves as the forecast interval gets shorter. Thus, the degree of precision is related to when the forecast is made. To measure this, we have calculated the average errors for different forecast spans, starting with the forecasts made in January almost two years before the end of the forecast year. The table clearly shows that in each country the earliest forecasts are subject to the greatest errors.

Another pattern that is readily visible in the table is the tendency for the West German record to show persistently smaller forecast errors than the other three countries. Perhaps this is due to the fact that since 1982 economic growth and inflation in West Germany has generally been steadier than in the other countries, and hence somewhat easier to forecast.

Looking Ahead

What are the Worldscanners telling us now about future changes in real output and inflation rates? The latest figures from the April survey are summarized in the second table. For 1987 and 1988 the forecasters' consensus calls for continued moderate economic expansion in all four countries. Indeed, the expected GNP growth rates are remarkably similar for all four countries—not far from 2½ percent for each year—and hardly changed at all from the actual growth for 1986. It is as though most forecasters simultaneously decided to employ the "naive forecast" technique for 1987 and 1988.

Not so for price inflation, however. For each country the consensus of the forecasters shows a speed-up in the rate of inflation either this year or next. In large part, presumably, this reflects what has happened to oil prices, where the decline from 1985 to 1986 was big enough to suppress markedly the general inflation rate. With that situation behind us now, the general price trend in the major industrial countries is expected to resume its normal upcreep, at least by 1988—around 2 percent per year in West Germany and Japan, around 5 percent in the U.S. and the U.K.

Will these forecasts prove to be accurate? The past record tells us to have somewhat more faith in the growth forecasts than in those for inflation. In both cases history also tells us that while it is rare for forecasters to be precisely on the mark, listening to them is better than using a blindfold and a pin!

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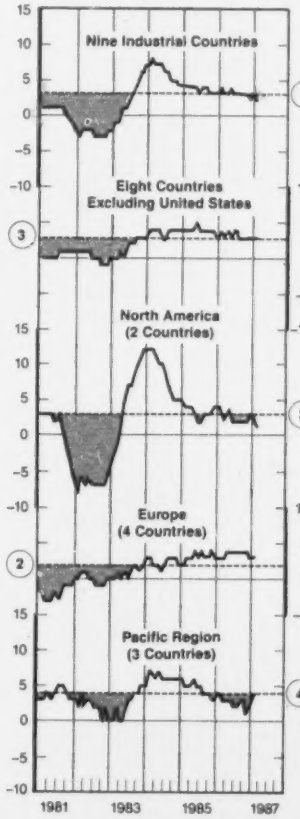
INDEXES, NINE COUNTRIES, 1985-87

		U.S.		Canada		West Germany		France		U.K.		Italy		Japan		Australia		Taiwan, R.O.C.	
		Indexes, 1980 = 100																	
		Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.
Nov.	85	111	118	114	113	104	111	109	110	103	110	104	108	121	114	118	114	137	148
Dec.	85	111	120	115	114	103	111	108	110	103	111	104	110	122	113	118	113	138	150
Jan.	86	112	120	115	114	104	110	109	109	104	112	104	111	122	114	119	113	141	150
Feb.	86	112	121	116	114	104	110	109	109	104	112	105	112	122	112	118	112	142	152
Mar.	86	112	120	115	114	105	111	110	111	104	112	105	112	123	112	118	112	145	154
Apr.	86	113	121	116	115	107	112	111	112	105	111	105	114	123	114	119	113	144	156
May	86	112	121	116	114	106	112	111	113	104	111	106	114	123	116	119	114	145	157
June	86	112	121	116	114	107	112	111	113	105	111	105	114	123	117	120	115	146	159
July	86	113	122	116	115	108	112	112	114	105	112	105	114	123	117	119	114	149	161
Aug.	86	113	122	116	115	108	112	112	114	106	111	104	114	123	117	119	115	150	162
Sept.	86	113	123	116	115	108	112	112	115	106	113	106	115	124	119	119	116	152	163
Oct.	86	113	122	116	116	108	112	112	115	106	112	106	116	124	120	120	117	154	165
Nov.	86	113	121	116	114	108	113	113	115	107	112		116	124	121	119	118	155	168
Dec.	86	114	123	117	115	108	113	113	116	107	113		116	125	124	121	121	158	169
Jan.	87	113	124	117	116	108	112	113	116	107	113		116	126	128	122	121	159	170
Feb.	87	114	126						117	108								164	174
		Growth Rates, Percent																	
Nov.	85	3	1	5	4	4	4	4	1	3	−1	2	4	3	1	9	3	3	9
Dec.	85	3	4	5	3	3	2	3	1	3	1	1	6	3	−1	8	0	4	10
Jan.	86	4	4	6	3	4	1	4	0	3	1	2	6	3	−1	10	0	7	9
Feb.	86	3	4	5	4	4	0	3	−1	3	1	2	7	3	−4	6	−3	9	11
Mar.	86	2	2	4	2	3	1	3	1	3	2	3	7	3	−3	6	−4	11	12
Apr.	86	4	4	5	3	6	2	4	4	3	0	2	9	2	1	6	−1	8	12
May	86	2	2	4	2	4	3	4	5	3	0	3	8	2	3	5	−1	9	12
June	86	2	3	3	1	6	2	3	4	3	0	2	6	2	5	6	1	9	13
July	86	2	3	2	2	6	1	4	5	3	1	2	5	2	5	2	0	12	13
Aug.	86	2	3	2	2	5	2	4	5	3	1	−1	4	2	5	2	1	12	13
Sept.	86	2	4	2	2	5	1	4	7	3	3	3	5	3	7	2	4	13	12
Oct.	86	2	2	2	2	4	2	4	7	3	1	2	6	3	8	3	6	13	13
Nov.	86	2	0	1	0	4	3	4	5	4	1		5	1	9	0	6	13	14
Dec.	86	3	3	2	1	3	2	4	6	3	2		5	2	14	4	11	14	13
Jan.	87	1	4	2	3	2	0	3	5	3	3		3	4	18	4	9	13	12
Feb.	87	1	7						5	5								19	15
		Ten Year Annual Growth Rate, Percent																	
1976-86		3	3	3	3	2	2	2	2	2	2	2	2	4	4	3	3	8	8

		9 Countries		8 Countries ex. U.S.		North America (2)		Europe (4)		Pacific Region (3)	
		Indexes, 1980 = 100									
		Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.	Perf.	Lead.
Nov.	85	111	115	111	112	111	118	105	110	122	115
Dec.	85	111	115	111	112	112	120	105	110	122	114
Jan.	86	112	116	112	112	112	120	106	110	122	115
Feb.	86	112	115	112	112	112	120	106	110	122	113
Mar.	86	112	115	112	112	112	120	106	111	123	113
Apr.	86	113	117	113	113	113	121	107	112	123	115
May	86	113	117	113	114	112	120	107	112	123	117
June	86	113	117	114	114	112	121	107	112	124	118
July	86	113	118	114	115	113	121	108	112	123	118
Aug.	86	113	118	114	115	113	121	108	113	124	118
Sept.	86	114	119	114	116	114	122	108	114	124	120
Oct.	86	114	119	115	116	113	122	108	114	125	121
Nov.	86	114	118	115	117	114	120	109	114	124	122
Dec.	86	115	120	115	118	114	123	109	114	125	125
Jan.	87	114	121	116	119	113	123	109	114	126	128
		Growth Rates, Percent									
Nov.	85	3	2	4	2	3	2	4	2	4	1
Dec.	85	3	2	3	1	4	4	3	2	3	0
Jan.	86	4	2	4	1	4	4	3	1	4	0
Feb.	86	3	2	3	0	3	4	3	1	3	−3
Mar.	86	3	1	3	1	2	2	3	2	3	−2
Apr.	86	4	3	4	2	4	4	4	3	3	1
May	86	3	3	3	3	3	2	4	3	3	3
June	86	3	3	3	3	2	3	4	3	3	5
July	86	3	3	3	3	2	3	4	3	2	5
Aug.	86	3	3	3	3	2	3	3	3	2	5
Sept.	86	3	4	3	5	2	3	4	4	3	7
Oct.	86	3	4	3	5	2	2	3	4	3	8
Nov.	86	2	3	3	5	2	0	4	3	2	9
Dec.	86	3	5	3	7	3	3	3	4	3	13
Jan.	87	2	6	3	8	1	4	3	3	4	17
		Ten Year Annual Growth Rate, Percent									
1976-86		3	3	3	3	3	3	2	2	4	4

Where We Are

Growth Rates, %, Performance Indexes



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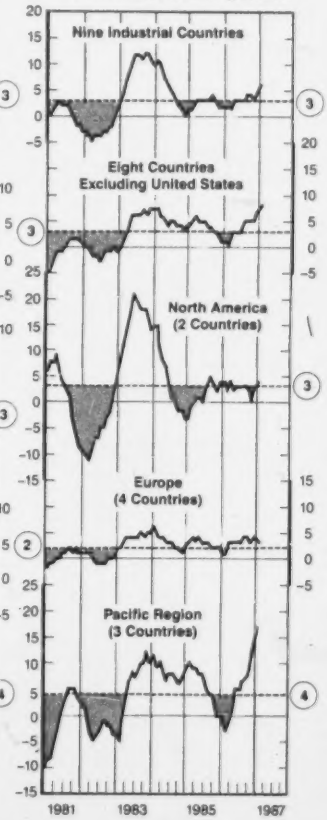
Growth Rates, %, Leading Indexes



Note: Horizontal dashed lines are average growth rates for 1976-86 in the index and in real GNP

Sources : Center for International Business Cycle Research and The Conference Board.